

NEW TINGIDAE FROM SOUTH INDIA (HEMIPTERA)

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The present paper describes three new species of lacebugs from Coimbatore, South India. A species of tingid is also recorded for the first time as a pest of the rice plant. The illustrations were made by Elinor Stromberg, Washington, D. C., and Patricia Hogue, Arlington, Virginia. The types of the new species are in the Drake Collection (U. S. National Museum) and paratypes in the collections of both authors.

Naochila arete, n. sp.

Small, oblong. Head black, dorsal spines pale testaceous; inferior margin of bucculae brownish. Antennae testaceous, fourth segment mostly blackish. Legs testaceous, tips of tarsi brown or fuscous. Pronotum dark fuscous, collar and fore part of inflated paranota grayish testaceous. Body beneath black-fuscous, shining. Elytron with veinlets mostly brownish or dark fuscous, outer marginal vein mostly testaceous. Areolae clear, partly clouded with fuscous in discoidal and sutural areas (fig. 1). Length (male) 2.45 mm., (female) 2.50 mm., width (elytra) about 1.00 mm.

Head very short, little produced in front of eyes, dorsal spines short, appressed. Antennae slender, clothed with short pale pubescence, fourth segment with longer hairs, measurements: segment I, 0.10 mm.; II, 0.08 mm.; III, 0.75 mm.; IV, 0.32 mm. Labium not quite reaching to base of mesosternum; laminae of rostral sulcus uniseriate, channel narrow on mesosternum, much wider and cordate on metasternum. Ostiole and ostiolar sulcus not visible.

Pronotum almost entirely concealed by the large, reflexed, inflated paranota, carinae mostly concealed by reflexed paranota. The carinae low, visible on hind process of pronotum; collar raised, almost truncate in front, slightly raised at middle so as to form a small hood. Elytra slightly wider across apices of discoidal areas than pronotum at humeral angles. The sutural areas overlapping each other in repose; costal area uniseriate, with large clear areolae; subcostal area bi- or triseriate in widest part opposite apex of discoidal area; discoidal area apically with outer boundary vein extending concavely into subcostal area, widest near apex, there three areolae deep. Hypocostal lamina uniseriate. Hind pair of wings clouded with fuscous. Legs slender, femora only slightly swollen.

Holotype (male) and *allotype* (female), brachypterous. Coimbatore, South India, on *Cordia* sp., M. M. Sundaram. *Paratypes*: 7 specimens, same labels as type, and 4 specimens, same locality. 8.viii.1960. Numerous nymphs were also found on *Cordia* with the adults.

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Fig. 1. *Naochila arete*, n. sp.

Separated from *N. sufflata* (Drake and Poor) by its larger size, longer appendages, reflexed paranota more inflated, and wider costal area with larger areolae.

Perissonemia ecmeles, n. sp.

Oblong, testaceous-brown to mostly dark brown, head and pronotum reddish brown, usually with a fairly large rounded spot in discoidal and a longitudinal strip in sutural area blackish; calli impressed, black-fuscous; bucculae testaceous to brown, body beneath blackish fuscous, moderately clothed with short yellowish or grayish pubescence. Antenna long, slender, blackish fuscous with basal segment mostly brown, rather densely clothed with short, yellowish or

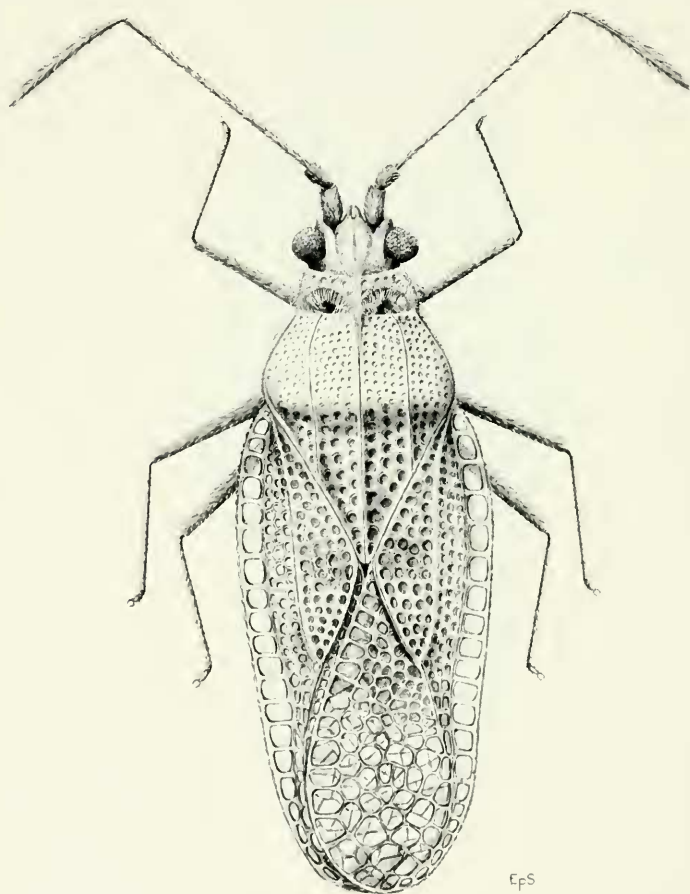


Fig. 2. *Perissonemia ecmeles*, n. sp.

grayish pubescence. Legs long, slender, brownish with tarsi blackish, sparsely clothed with short grayish pubescence. Eyes moderately large, blackish. Head, calli, and posterior projection of pronotum often with some whitish exudate. Dorsal surface sparsely clothed with fine, inconspicuous, yellowish pubescence. Length 3.40-3.70 mm., width (elytra) 1.25-1.35 mm.

Head very short, slightly produced in front of eyes, with median longitudinal sulcus, unarmed or armed with a pair of short frontal spines; bucculae areolate, closed or nearly closed in front; labium brownish, nearly reaching base of mesosternum; laminae of rostral sulcus low, indistinctly areolate, open at base. Antennae long, slender, fourth segment scarcely thicker than the third, measurements: segment I, 0.20 mm.; II, 0.12 mm.; III, 1.25 mm.; IV, 0.75 mm. Metathoracic scent glands without distinct ostiole and ostiolar canal on each metapleuron. Hypocostal lamina composed of one row of areolae.

Pronotum moderately convex across humeri, punctate, areolate on hind projection, tricarinate; median carina prominent, percurrent, without areolae; lateral carinae distinct, less raised than median, parallel, terminating anteriorly at calli; pronotum cariniform, narrow, slightly wider opposite calli, there usually with a couple of narrow cells; collar raised, truncate in front, without hood.

Elytra extending beyond apex of abdomen, scarcely wider in widest part than pronotum across humeral angles, sutural areas overlapping in repose; costal area composed mostly of three rows of nearly rounded aerolae, discoidal area scarcely attaining middle of elytra, acutely angulate at base and apex, widest near middle, there four areolae deep. Hind wings shorter than elytra, clouded with fuscous.

Holotype (male), *allotype* (female), macropterous, on *Ficus* sp., Coimbatore, India. 12.X.1960. *Paratypes*: 8 specimens, each bearing some locality label as type; 2 specimens, 8.X.1961; 2 specimens, 8.VIII.1961; and 2 specimens 8.VIII.1960.

Separated from *P. kietana* Drake and Ruhoff of the Solomon Islands by the less elevated and non-areolate median carina and the narrower paranota. The median carina is uniseriate in *kietana*.

Stephanitis charieis, n. sp.

Small, oblong, body beneath and above brownish, veinlets pale testaceous, areolae hyaline, iridescent. Appendages pale testaceous. Length 3.10 mm., width (across paranota) 1.10 mm. and (near apices of elytra) 1.65 mm.

Head very short, concealed (save eyes) by hood, armed with five pale spines; occipital spines very long, appressed, the three frontal spines much shorter, porrect; bucculae areolate, closed in front, mostly two areolae deep, three deep behind. Rostrum brownish, extending beyond middle of metasternum; sternal laminae of labial

sulcus composed of one row of fairly large areolae, with large V-shaped opening at base. Antennae very long, slender, clothed with short, inconspicuous pubescence, fourth segment with longer hairs, measurements: segment I, 0.30 mm.; II, 0.10 mm.; III, 1.25 mm.; IV, 0.56 mm.

Pronotum finely punctate, with backward projecting process very narrow, tapering and areolate; hood moderately large, inflated basally, thence anteriorly tapering, with apex slightly surpassing first antennal segment, basal length less than that of median carina (50:60); median carina strongly foliaceous, biseriate, basal row of areolae very large, superior margin distinctly convex at highest

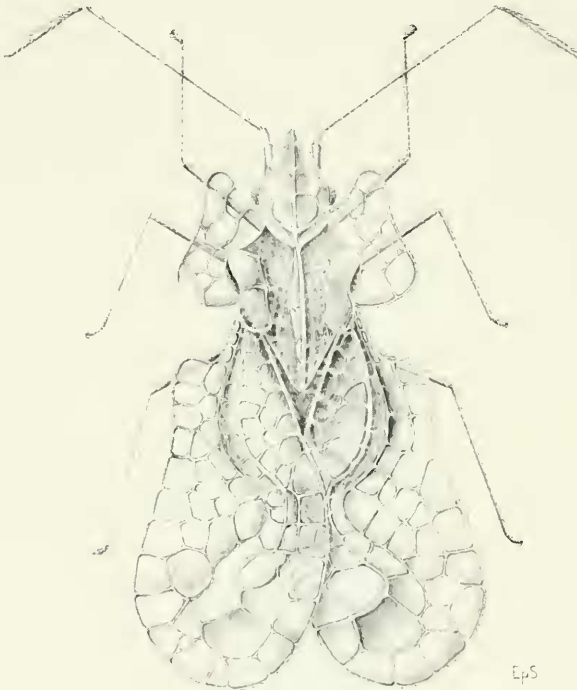


Fig. 3. *Stephanitis charieis*, n. sp.

point, slightly higher than the crest of hood (22:17); lateral carina conchate, present on hind part of pronotal disc, but absent on triangular process, two-thirds as high as median carina, composed of two large areolae; paranotum large, nearly rectangular, slightly reflexed, mostly triseriate, areolae large. Outer margins of paranota and elytra finely serrate. Veins of elytra and pronotal projections without cilia or long hairs.

Elytra considerably wider and much longer than abdomen, slightly divergent apically, with apices distinctly separated from each other; costal area wide, four areolae deep in widest part; boundary vein separating discoidal and sutural areas distinctly raised so as to form a small inflation; discoidal area scarcely reaching to the middle of elytron, usually three areolae deep in widest part; surface of subcostal area opposite discoidal area nearly erect.

Holotype (male), *allotype* (female), and 12 *paratypes*, all macropterous. Coimbatore, South India, 1.I.1961, on leaves of Jack tree, *Artocarpus integrifolia*. Nymphs were also taken with the adults.

This species belongs to the subgenus *Menodora* Horváth of *Stephanitis*. It can be separated from *S. formosa* Horváth, *S. sondaica* Horváth and *S. kardia* Drake and Ruhoff by the absence of cilia and long hairs on the veins of elytra and pronotal projections, especially on the outer margins of the paranota and elytra.

Bako malayanus (Drake)

Galeotingis malayana Drake, 1947, Bol. Mus. Nat. (Brasil), no. 81, p. 2.

Many nymphs and adults, Coimbatore, South India, VII-VIII, 1960, taken on fodder grasses (*Panicum repens*, *Cynadon dactylon*, and *Cenchrurus glaucus*) and paddy seedlings of cultivated rice (*Oriza sativa*). This is the first record of a tingid living and breeding on rice plants.

In addition to southern India, we have specimens from the Federation of Malaya (type specimens from Perit) and Philippine Islands (Manila). *B. malayanus* is similar in general aspect to *B. lebruni* Schouteden from the Congo, Africa, and differs from it largely by its slightly smaller size, thinner veins of the reticulation, smaller hood, and less abruptly expanded elytron at base. More specimens from Africa are needed to clarify the specific status of these two species.